

Notice of Allowability

Application No.

10/697,635

Examiner

VAN H. NGUYEN

Applicant(s)

KELLEY ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the telephone interview on 04/04/06.
2. ☒ The allowed claim(s) is/are 1-5, 7-11, 13-17, and 19-23 (now renumbered as 1-20).
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.


Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER

EXAMINER'S AMENDMENT & REASONS FOR ALLOWANCE

I. EXAMINER'S AMENDMENT:

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.
2. Authorization for this examiner's amendment was given in a telephone interview with CHRISTOPHER S. CHOW (Reg. No. 46, 493) on April 04, 2006.
3. **The application has been amended as follows:**

In the Claims:

(a) All previous copies of claims 1, 3, 7, 9, 13, 15, 17, 19, and 21 have been replaced with the following clean copy of claims 1, 3, 7, 9, 13, 15, 17, 19, and 21 as amended by the Examiner's amendment:

Claim 1. A method for dynamically registering a function in a device that includes at least two operating modes comprising a privileged mode and a non-privileged mode, the method comprising:

- identifying an available slot in a data structure that maps identifiers to functions;

- storing a pointer associated with the function in the slot;

- retrieving an identifier that is associated with the slot;

- making the identifier accessible to non-privileged applications; and

- accessing said function via said identifier in said privileged and non-privileged modes;

- wherein:

- said function is dynamically registered during device initialization;

- said identifier is stored in a static variable that is readable by both privileged and non-privileged applications; and

- by retrieving said identifier, a privileged or non-privileged application can access the services provided by the function.

Claim 3. A method for dynamically registering a function in a device that includes at least two operating modes comprising a privileged mode and a non-privileged mode, the method comprising:

- identifying an available slot in a data structure that maps identifiers

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to functions;

storing a pointer associated with the function in the slot;

retrieving an identifier that is associated with the slot; and

making the identifier accessible to non-privileged applications;

wherein:

said function is dynamically registered during device initialization;

said identifier is stored in a static variable which is readable by both privileged and non-privileged applications;

said data structure is a table; and

by retrieving said identifier and accessing said function via said identifier, both privileged and non-privileged applications can access the services provided by said function.

Claim 7. An apparatus for dynamically registering a function in a device that includes at least two operating modes comprising a privileged mode and a non-privileged mode, the apparatus comprising:

logic to identify an available slot in a data structure that maps identifiers to functions;

logic to store a pointer associated with the function in the slot;

logic to retrieve an identifier that is associated with the slot;

logic to make the identifier accessible to non-privileged applications; and

logic for accessing said function via said identifier in said privileged and non-privileged modes;

wherein:

said function is dynamically registered during device initialization;

said identifier is stored in a static variable that is readable by both privileged and non-privileged applications; and

by retrieving said identifier, a privileged or non-privileged application can access the services provided by the function.

Claim 9. An apparatus for dynamically registering a function in a device that includes at least two operating modes comprising a privileged mode and a non-privileged mode, the method comprising:

logic to identify an available slot in a data structure that maps identifiers to functions;

logic to store a pointer associated with the function in the slot;

logic to retrieve an identifier that is associated with the slot; and

logic to make the identifier accessible to non-privileged applications;

wherein:

said function is dynamically registered during device initialization;

said identifier is stored in a static variable which is readable by both privileged and non-privileged applications;

said data structure is a table; and

by retrieving said identifier and accessing said function via said identifier, both privileged and non-privileged applications can access the services provided by said function.

Claim 13. An apparatus for dynamically registering a function in a device

that includes at least two operating modes comprising a privileged mode and a non-privileged mode, the apparatus comprising:

means for identifying an available slot in a data structure that maps identifiers to functions;

means for storing a pointer associated with the function in the slot;

means for retrieving an identifier that is associated with the slot;

means for making the identifier accessible to non-privileged applications; and

means for accessing said function via said identifier in said privileged and non-privileged modes;

wherein:

said function is dynamically registered during device initialization;

said identifier is stored in a static variable that is readable by both privileged and non-privileged applications; and

by retrieving said identifier, a privileged or non-privileged application can access the services provided by the function.

Claim 15. An apparatus for dynamically registering a function in a device that includes at least two operating modes comprising a privileged mode and a non-privileged mode, the apparatus comprising:

means for identifying an available slot in a data structure that maps identifiers to functions;

means for storing a pointer associated with the function in the slot;

means for retrieving an identifier that is associated with the slot;

and

means for making the identifier accessible to non-privileged applications;

wherein:

said function is dynamically registered during device initialization;

said identifier is stored in a static variable which is readable by both privileged and non-privileged applications;

said data structure is a table; and

by retrieving said identifier and accessing said function via said identifier, both privileged and non-privileged applications can access the services provided by said function.

Claim 19. A computer-readable media comprising instructions, which when executed by a processor in a device, operate to dynamically register a function in the device, wherein the device includes at least two operating modes comprising a privileged mode and a non-privileged mode, the computer-readable media comprising:

instructions for identifying an available slot in a data structure that maps identifiers to functions;

instructions for storing a pointer associated with the function in the slot;

instructions for retrieving an identifier that is associated with the slot;

instructions for making the identifier accessible to non-privileged applications; and

instructions for accessing said function via said identifier in said privileged and non-privileged modes;

wherein:

said function is dynamically registered during device initialization;

said identifier is stored in a static variable that is readable by both privileged and non-privileged applications; and

by retrieving said identifier, a privileged or non-privileged application can access the services provided by the function.

Claim 21. A computer-readable media comprising instructions, which when executed by a processor in a device, operate to dynamically register a function in the device, wherein the device includes at least two operating modes comprising a privileged mode and a non-privileged mode, the computer-readable media comprising:

instructions for identifying an available slot in a data structure that maps identifiers to functions;

instructions for storing a pointer associated with the function in the slot;

instructions for retrieving an identifier that is associated with the slot;

instructions for making the identifier accessible to non-privileged applications;

wherein:

said function is dynamically registered during device initialization;

said identifier is stored in a static variable which is readable by both privileged and non-privileged applications;

said data structure is a table; and

by retrieving said identifier and accessing said function via said identifier, both privileged and non-privileged applications can access the services provided by said function.

(b) Claims 6, 12, 18, and 24 have been cancelled.

II. REASONS FOR ALLOWANCE:

1. The following is an examiner's statement of reasons for allowance:
2. Formal drawings filed on October 29, 2003 are acceptable.
3. The prior art does not expressly teach or render obvious the invention as recited in amended independent claims 1, 3, 7, 9, 13, 15, 19, and 21.
4. The claimed *"accessing said function via said identifier in said privileged and non-privileged modes; wherein: said function is dynamically registered during device initialization; said identifier is stored in a static variable that is readable by both privileged and non-privileged applications; and by retrieving said identifier, a privileged or non-privileged application can access the services provided by the function"*, when taken in the context of the claims as a whole, was not uncovered in the prior art teachings.
5. Nor were references uncovered that would have provided a basis of evidence for asserting a motivation that one of ordinary skill level in the art at the time the invention was made, knowing of a method for dynamically registering a function in a device that includes at least two operating modes comprising a privileged

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mode and a non-privileged mode in this specific environment, would have integrated or modified to teach the method for dynamically registering a function in a device that includes at least two operating modes comprising a privileged mode and a non-privileged mode including the features as recited in the context of independent claims 1, 3, 7, 9, 13, 15, 19, and 21.

6. Dependent claims are allowed as they depend upon allowable independent claims.
7. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

CONTACT INFORMATION

1. Any inquiry concerning this communication or earlier communications from the examiner should be directed to VAN H. NGUYEN whose telephone number is (571) 272-3765. The examiner can normally be reached on Monday-Thursday from 8:30AM - 6:00PM. The examiner can also be reached on alternative Friday.
2. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, WILLIAM THOMSON can be reached at (571) 272-3718.

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3. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.
4. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any response to this action should be mailed to:
Commissioner for patents
P O Box 1450
Alexandria, VA 22313-1450

Van H. Nguyen
Patent Examiner- Art Unit 2194